

## REPORT DOCUMENTATION PAGE

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6. AUTHOR(S) OSCAR BRUNO			
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13. ABSTRACT (Maximum 200 words) For a period of approximately six months our research group (including postdocs and students involved in the computational electro magnetics effort as well as the departmental system administrator) met with approximately three to four vendors per month, and had meetings to consider the various infrastructures offered. After this period a focus was developed on Intel Pentium IV Xeon based systems. Upon further consideration of the most competitive pricing quality of service and reliability the decision was reached to purchase the system front promicro systems"-a vendor base based in the San Diego area. The system consist of 256 processors, arranged as a group of 128 dual Intel Pentium IV Xeon 1.7 GHz boxes, each one with 1 Gb of RAM. In addition the system has a 0.5 Tb Raid, an subsystem containing 16 boxes interconnected by an ultra- fast Myrubit interconnect, as well as Gb Ethernet in another 16 box subsystem. The system was housed in a room fully- refurbished for this purposes, with support (\$80k) provided in its entirety by the Caltech provost office. In addition, the Caltech provosts office provided matching funds for the computer purchase in the amount of \$120k. The system. which was fully set up by the departmental system administrator, Chad Schmnutzer, is highly reliable, fast and efficient, and is now providing outstanding service to present amid past postdocs, students and faculty associated with the computational electro- magnetics effort.			
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*"Parallel Hardware Infrastructure for Research and Education  
in Computational Electromagnetics"*

## Final Technical Report

Oscar P. Bruno, PI  
May 2003

### Objective

Development of a parallel computational infrastructure for computational electromagnetism.

### Report

For a period of approximately six months our research group (including postdocs and students involved in the computational electromagnetics effort as well as the departmental system administrator) met with approximately three to four vendors per month, and had meetings to consider the various infrastructures offered. After this period a focus was developed on Intel Pentium IV Xeon based systems. Upon further consideration of the most competitive pricing, quality of service and reliability, the decision was reached to purchase the system from "promicro systems"—a vendor based in the San Diego area.

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